6-2013

Redlining in California School Bond Ratings

John Yinger
The Maxwell School, Syracuse University, joyinger@syr.edu

It's Elementary

A Monthly Column by EFAP Director John Yinger
June 2013

Redlining in California School Bond Ratings

School districts rely on the municipal bond market to spread out the burden of their infrastructure projects. Without access to this market, school districts would have to save up money for many years before they could build a new school or update their laboratories—or else they would have to give up this capital spending altogether.

Under these circumstances, no school district should be penalized for characteristics that are outside its control and unrelated to its ability to pay back its bonds. It would be unfair, and contradictory to fundamental American principles, for example, if a school district with a relatively high concentration of black citizens had to pay more for its bonds than a school district with the same prospects for re-paying its bonds but with a relatively high concentration of white citizens. And yet in this column I will provide some evidence that, because of the practices of the bond rating agencies, this is exactly what happens. Surprisingly, this type of behavior is not against the law. This nation has not yet passed civil rights legislation that covers this case. The policy punch line of this column is that legislation of this type is badly needed.

My interest in this topic began with a project on general obligation, GO, municipal bonds issued by big cities.[1] These bonds are backed by the full taxing power of the issuing government. Because schools are sometimes city departments, some of these bonds were undoubtedly used to spread out the cost of school construction projects. In any case, I discovered that GO bonds almost never default, and I could not find any examples of default among the cities in several different samples. A default, of course, is a failure to make some of the payments in a bond contract—or at least not to make them on time.

A key feature of the municipal bond market is that bond ratings agencies can be hired by the issuing government to rate a bond issue. These ratings are intended to give investors information about the quality of the bond issue as an investment. The three main municipal bond rating agencies (Moody's, Standard and Poor's, and Fitch) say that their bond ratings are measuring the probability of default. But if a category of bonds never defaults, this claim simply cannot be true. In fact, the probability of default for a GO bond issued by a big city appears to be zero! Thus, a bond rating agency cannot justify a lower rating for one city's GO bonds than for another's on the grounds that the cities have different default probabilities.

Moreover, bond ratings have consequences. Many studies have documented that municipal bonds with lower bond ratings, including GO bonds, must pay higher interest rates to

[1] John Yinger. 2010. "Municipal Bond Ratings and Citizens' Rights." *American Law and Economics Review* 12 (1) (Spring): 1-38.

attract investors. These interest payments are part of the cost of an infrastructure project, so jurisdictions with lower bond ratings must pay more than other jurisdictions for the same project. In some cases, of course, this higher cost is entirely justified because the bonds are backed by a payment stream, such as rents or medical bills, associated with the project—a payment stream that may not yield as much revenue as expected. Many bonds with this type of backing have defaulted. But this is not the case with GO bonds, which do not default. As a result, school districts that receive a relatively low bond rating for a set of GO bonds must pay a higher interest rate than other school districts even though its probability of default is the same.

This difference in cost might not be an issue if it were a random phenomenon, but it becomes quite worrisome if it contradicts principles of fair treatment that have proven important to our nation in other contexts. To be specific, it becomes quite worrisome if the school districts receiving lower ratings on their GO bonds have large minority populations. The Fair Housing Act prohibits lenders and real estate brokers from providing fewer services or charging higher prices in largely minority than in largely white neighborhoods—practices that are called "redlining." In my view, the same standard should be applied to credit rating agencies.

My 2010 article presents evidence that all three major municipal bond ratings agencies give lower ratings for GO bonds to cities with a relatively high black or Hispanic population than to cities with a relatively high white population. These lower ratings translate into higher costs for infrastructure projects. Although it is not currently covered by any law, this behavior is a type of redlining and is clearly unfair.

The California Bond Advisor web site recently posted information on the bonds issued by school districts in California in 2012. By combining this information with demographic data from the National Center for Education statistics, I was able to determine whether the bond rating agencies also practice this type of redlining in their ratings of California school bond issues.[2] This analysis is limited to GO bonds issued by unified school districts, which are districts that include all grades from kindergarten through high school. To the best of my knowledge, none of these bonds, nor any other GO school bonds in California, have defaulted.

Tables 1 and 2 below describe these data. The entries in the first column of Table 1 describe the bond ratings. The first entry in this column is a rating by Moody's; the second entry is a rating by Standard and Poor's or Fitch. Because the symbols used by Moody's differ from those used by the other two rating agencies, it is possible to determine that of the 54 bond issues in this data set, 32 were rated by Moody's, 38 were rated by Standard and Poor's or Fitch (or both), and 16 were rated by both Moody's and one of the other agencies. No bond issue received the highest possible rating (Aaa or AAA) or the next highest (AA1 or AA+), but Table 1 indicates that 18 districts received the third highest rating (AA2 or AA). The lowest observed rating was A2, the sixth highest rating.

Table 2 reveals that unified school districts in California are quite varied in their ethnic composition. The share of blacks plus Hispanics ranges from 7.8 percent to 73.0 percent, whereas the Asian share ranges from 0.9 percent to 60.9 percent.

---

[2] The relevant web sites are http://www.californiabondadvisor.com/yieldtrends.html and http://nces.ed.gov/surveys/sdds/ed/index.asp. I am grateful to Kitty Nasto for helping me assemble these data.

Table 1. Ratings of California Unified School District GO Bonds, 2012

Rating	Numerical Equivalent	Number of Districts
Aa2 or AA	3	18
AA3 or AA-	4	22
A1 or A+	5	9
A2 or A	6	5

Table 2. Ethnic Composition of California Unified School Districts, 2010

Variable	Mean	Minimum	Maximum
Black or Hispanic Share	35.8%	7.8%	73.0%
Asian Share	11.8%	0.9%	60.9%

As in my 2010 article, the relationship between ethnic composition and GO bond ratings is estimated using an ordered logit analysis, which is appropriate for an ordinal dependent variable such as a bond rating. The results indicate whether the explanatory variables have a statistically significant impact on the ordering of the dependent variable.[3] As shown in Table 3, both the black/Hispanic share and the Asian share have an impact on bond ratings that is statistically significant at the standard 5 percent level. School districts with a relatively large black and Hispanic population receive lower ratings, and districts with a relatively large Asian population receive higher ratings, than largely white districts. These coefficients imply, for example, that a district with the maximum observed black/Hispanic share would have a rating two categories lower than a district with the minimum observed black/Hispanic share.

Table 3. Coefficient Estimates for Bond Ratings of CA Unified School Districts, 2012

Variable	Coefficient	z Statistic	Probability
Black or Hispanic Share	3.27	2.20	0.028
Asian Share	-5.90	-1.97	0.048

These results indicate that the ratings of school district GO bonds in California in 2012 reflect behavior by the bond ratings agencies that is analogous to redlining. Because lower bond ratings lead to higher interest costs, this behavior implies that for no legitimate reason school districts with a high black or Hispanic population have to pay more for infrastructure (and districts with a high Asian population have to pay less for infrastructure) than school districts that are largely white. This behavior does not violate any law of which I am aware, but it does contradict principles of fairness that are widely recognized in our democracy.

New laws and enforcement mechanisms are needed to address this unfairness. Bond ratings agencies should of course be given a chance to respond to any claim that they are practicing redlining. Enforcement procedures based on those developed for existing civil rights laws that identify redlining and give ratings agencies a chance to respond are explained in detail in my 2010 article. Anyone interested in a level playing field for school capital finance should push for these or similar procedures.

[3] In an ordered logit, statistical significance is determined with a z statistic, which is analogous to a t statistic in an ordinary least squares regression.